IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application: Bradley J. Swearingen et al.

Serial No.:   09/663,151

Filed: September 15, 2000

Art Unit: 3691

Confirmation No.:   2668

Examiner: Subramanian, Narayanswamy

For: Method and System for Executing Trades in a
                    User Preferred Security

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

Dear Sir:

1.   Real Party in Interest

The real party in interest is Charles Schwab & Co., Inc.,

having a place of business at 101 Montgomery Street, San

Francisco, CA 94104.

2.   Related Appeals and Interferences

There are no related appeals or interferences.

3. Status of Claims

Claims 1-66 have been cancelled.

Claims 67-114 stand rejected and are under appeal.

4. Status of Amendments

Appendix A to this brief includes the claims as currently presented. No amendments have been filed subsequent to the most recent final rejection.

5. Summary of the Claimed Subject Matter

The claims on appeal relate to methods and systems for executing trades in a user preferred security. The claims are grouped according to the independent claim that they depend from.

According to independent claim 67 on appeal, a computer readable medium (page 6, lines 8-16) having a sequence of instructions which, when executed by a processing entity, effectuates a trade in a user selected user preferred security, the computer readable medium comprising, a code segment for identifying user preferred securities from a plurality of securities based upon at least two user specific criteria including at least one criterion related to pricing (12, page 56, lines 3-7; Figure 4; 82, page 32, lines 1-4); a code segment for generating a graph in which each of the user preferred

securities is represented and graphically differentiated from each of the other user preferred securities based upon the values of at least three user specific parameters associated with each of the user preferred securities (120, Fig. 4; page 37, lines 18-21;14, page 56, lines 7-11); a code segment for receiving a user selection of one of the user preferred securities represented on the graph (page 46, lines 9-19; page 47, lines 14-17; page 56, lines 7-15); a code segment for associating order parameters with the user selected user preferred security (page 15, line 17 - page 16 line 16; page 47, lines 14-19; page 49, lines 6-9, 14-21; page 50, lines 1-3); and a code segment for sending an order to execute a trade in the user selected user preferred security according to the order parameters (250, Fig. 10A, page 46, line 3; 274, page 50, line 7; page 29, line 14 - page 30, line 21.

According to independent claim 82 on appeal, a computer readable medium (page 6, lines 8-16) having a sequence of instructions which, when executed by a processing entity, effectuates a trade in a user selected user preferred security, the computer readable medium comprising, a code segment for receiving security data for a plurality of securities from a security data source (12, page 14, lines 3-13); a code segment for receiving from a user at least two user specific criteria including at least one criterion related to pricing (82, page

21, line 19 - page 22, line 2); a code segment for automatically identifying within the plurality of securities at least two user preferred securities conforming to the user specific criteria received from the user; a code segment for receiving at least first, second and third user specific parameters from the user (page 21, line 19 - page 22, line 3); a code segment for generating a graph having first, second and third mutually-orthogonal axes intersecting at a common origin (120 of Fig. 4; page 37, lines 18-21); a code segment for plotting each of the user preferred securities as an icon on the graph at a coordinate corresponding to the value of the first parameter of that user preferred security along the first axis, corresponding to the value of the second parameter of that user preferred security along the second axis and corresponding to the value of the third parameter of that user preferred security along the third axis, thereby representing and graphically differentiating the user preferred securities from one another (202 of Fig. 6A; page 38, lines 1-20); a code segment for receiving a user selection of one of the user preferred securities represented on the graph (page 46, lines 9-19; page 47, lines 14-17; page 56, lines 7-15); a code segment for associating order parameters with the user selected user preferred security (page 15, line 17 - page 16 line 16; page 47, lines 14-19; page 49, lines 6-9, 14-21; page 50, lines 1-3); and a code segment for sending an order

to execute a trade in the user selected user preferred security according to the order parameters(250, Fig. 10A, page 46, line 3; 274, page 50, line 7; page 29, line 14 - page 30, line 21).

According to independent claim 83 on appeal, a system (Figure 1; page 12, line 10 - page 16, line 16) for enabling a trade in a user selected user preferred security, the system comprising, means for identifying user preferred securities (12, page 56, lines 3-7; Figure 4; 82, page 32, lines 1-4) from a plurality of securities based upon at least two user specific criteria including at least one criterion related to pricing; means for generating a graph (120, Fig. 4; page 37, lines 18-21;14, page 56, lines 7-11) in which each of the user preferred securities is represented and graphically differentiated from each of the other user preferred securities based upon the values of at least three user specific parameters associated with each of the user preferred securities; means for receiving a user selection of one of the user preferred securities represented on the graph (page 46, lines 9-19; page 47, lines 14-17; page 56, lines 7-15); means for associating order parameters with the user selected user preferred security (page 15, line 17 - page 16 line 16; page 47, lines 14-19; page 49, lines 6-9, 14-21; page 50, lines 1-3); and means for sending an order to execute a trade in the user selected user preferred security according to the order parameters (250, Fig. 10A, page

46, line 3; 274, page 50, line 7; page 29, line 14 - page 30, line 21).

According to independent claim 98 on appeal, a system (Figure 1; page 12, line 10 - page 16, line 16) for enabling a trade in a user selected user preferred security, the system comprising, means for receiving security data for a plurality of securities from a security data source (12, page 14, lines 3-13); means for receiving from a user at least two user specific criteria including at least one criterion related to pricing (82, page 21, line 19 - page 22, line 2); means for automatically identifying within the plurality of securities at least two user preferred securities conforming to the user specific criteria received from the user (page 21, line 19 - page 22, line 3); means for receiving at least first, second and third user specific parameters from the user (page 39, lines 5-9); means for generating a graph having first, second and third mutually-orthogonal axes intersecting at a common origin (120 of Fig. 4; page 37, lines 18-21); means for plotting each of the user preferred securities as an icon on the graph at a coordinate corresponding to the value of the first parameter of that user preferred security along the first axis, corresponding to the value of the second parameter of that user preferred security along the second axis and corresponding to the value of the third parameter of that user preferred security along the

third axis, thereby representing and graphically differentiating the user preferred securities from one another (202 of Fig. 6A; page 38, lines 1-20); means for receiving a user selection of one of the user preferred securities represented on the graph (page 46, lines 9-19; page 47, lines 14-17; page 56, lines 7-15); means for associating order parameters with the user selected user preferred security (page 15, line 17 - page 16 line 16; page 47, lines 14-19; page 49, lines 6-9, 14-21; page 50, lines 1-3); and means for sending an order to execute a trade in the user selected user preferred security according to the order parameters (250, Fig. 10A, page 46, line 3; 274, page 50, line 7; page 29, line 14 - page 30, line 21).

According to independent claim 99, a method for enabling a trade in a user selected user preferred security (Fig. 11), the method comprising, identifying user preferred securities from a plurality of securities based upon at least two user specific criteria including at least one criterion related to pricing (404 of Fig. 11, page 55, line 20; 410 of Fig. 11, page 56, line 3; 412 of Fig. 11, page 56, line 7); generating a graph in which each of the user preferred securities is represented and graphically differentiated from each of the other user preferred securities based upon the values of at least three user specific parameters associated with each of the user preferred securities (414 of Fig. 11, page 56, line 8; 416 of Fig. 11, page 56, line

9; page 56, lines 9-11); receiving a user selection of one of the user preferred securities represented on the graph (418 of Fig. 11, page 56, lines 11); associating order parameters with the user selected user preferred security (page 49, lines 6-9, 14-21; page 50, lines 1-3;page 56, lines 7-11); and sending an order to execute a trade in the user selected user preferred security according to the order parameters (420 of Fig. 11, page 56, line 15).

According to independent claim 114, a method for enabling a trade in a user selected user preferred security (Fig. 11), the method comprising, receiving security data for a plurality of securities from a security data source (404 of Fig. 11, page 55, line 20); receiving from a user at least two user specific criteria including at least one criterion related to pricing (410 of Fig. 11, page 56, line 3); automatically identifying within the plurality of securities at least two user preferred securities conforming to the user specific criteria received from the user (412 of Fig. 11, page 56, line 7); receiving at least first, second and third user specific parameters from the user (414 of Fig. 11, page 56, line 8);generating a graph having first, second and third mutually-orthogonal axes intersecting at a common origin (416 of Fig. 11, page 56, line 9); plotting each of the user preferred securities as an icon on the graph at a coordinate corresponding to the value of the first parameter of

that user preferred security along the first axis, corresponding to the value of the second parameter of that user preferred security along the second axis and corresponding to the value of the third parameter of that user preferred security along the third axis, thereby representing and graphically differentiating the user preferred securities from one another (page 56, lines 9-11); receiving a user selection of one of the user preferred securities represented on the graph (418 of Fig. 11, page 56, lines 11); associating order parameters with the user selected user preferred security (page 49, lines 6-9, 14-21; page 50, lines 1-3;page 56, lines 7-11); and sending an order to execute a trade in the user selected user preferred security according to the order parameters (420 of Fig. 11, page 56, line 15).

6.   Grounds of Rejection to be Reviewed on Appeal

Extensive prosecution of this application since it was filed in September 2000 has removed all prior art rejections and rejections on all formal matters.   Only a rejection under 35 U.S.C. § 101 remains for the Board's consideration.   Appellants respectfully request review of the following rejections made by the Examiner:

The Examiner's rejection of claims 67-114 under 35 U.S.C. 101 as being directed to non-statutory subject matter (Final Office Action dated July 2, 2007, pp. 2-8).

7. Argument

The following arguments are in response to the Examiner's assertions presented in the Final Office Action dated July 2, 2007.   Appellants do not agree with the grouping of claims presented in the Examiner's rejections.   Therefore, Appellants arguments address the claims as they should be considered.   In addressing the issues in the Final Office Action, Appellants' group the claims in the arguments as follows: Claims 67-82; Claims 83-98; Claims 99-113; and Claim114.

I. Intended Use Limitation and Judicial Exception to 35 U.S.C. 101

The Examiner initially rejects claims 67-114 as being directed to non-statutory subject matter:

> The limitation "to execute a trade in, the user selected user preferred security" is an interpreted use of the sending step.   Sending an order is not the same as executing a trade. As such the claimed invention is directed to a judicial exception to 35 U.S.C. 101 (i.e., an abstract idea, natural phenomenon, or law of nature) and is not directed to a practical application of such judicial exception because the claims do not require any physical transformation and the invention as claimed does not produce a useful, concrete, and tangible result. (Pages 2-3 in Final Office Action dated 02 July 2007).

a. Rejections based in part on Intended Use Limitation

In the rejection (Final Office Action at 2-4), the Examiner suggests that claims 67-114 would be statutory subject matter if the purported phrase was not an intended use, thereby, placing

the "computer readable medium having a sequence of instructions which, when executed by a processing entity, effectuates a trade in a user selected user preferred security" within the statutory subject matter under 35 U.S.C. 101. The Examiner asserts that the limitation "to execute a trade in, the user selected user preferred security" is merely an "intended use", therefore the remaining sequence of instructions is reduced to non-statutory subject matter.

Appellants disagree. The phrase is not an intended use as that term is construed in patent law. Consequently, the claims are not removed from the statutory subject matter of 35 U.S.C. 101. Appellants also argue that even assuming, arguendo, that the phrase was an "intended use", the proper view would be that any "intended use" derived from the claims would be of the type that imparts a structural limitation demonstrating the relatedness and interconnectivity of the parts.

Claims 67-82 are drawn to a manufacture, *i.e.*, a computer readable medium. Accordingly, any "intended use" derived from the claims imparts a structural limitation of relatedness of the manufacture's parts, *e.g.*, the actual code segments on the computer readable medium. As such, the claimed subject matter is well within the ambit of patentable subject matter.

Claims 83-98 are drawn to a manufacture, *i.e.*, a system. Any "intended use" artificially derived from the claims by the

Examiner imparts a structural limitation of relatedness of the manufacture's parts, *i.e.*, the means by which the system enables a trade.

Claims 99-113 are drawn to a method for enabling a trade. Any "intended use" artificially derived from the claims by the Examiner imparts a structural limitation of relatedness of the parts utilized in the method steps.

Claim 114 is directed to a method of enabling a trade. Any asserted "intended use" limitation artificially derived by the Examiner would be one that imparts a structural limitation of relatedness of the parts used in the method steps.

While an intended use limitations may be of concern when addressing prior art, in the present application, there are no remaining issues of prior art. Rather than take the claim as a whole, the Examiner inappropriately isolates "to execute a trade in the user selected user preferred security", wherein the entire limitation in Claim 1 is "a code segment for sending an order to execute a trade in the user selected user preferred security according to the order parameters." By breaking the claimed limitation, the Examiner attempts create a straw man of a purported phrase of intended use. This is inappropriate and legally incorrect. It is not some form of intended use, it is how the claimed invention functions to achieve its novel and nonobvious result.

While no prior art is asserted in the Final Office Action, the purported limitation asserted by the Examiner as being an "intended use", nonetheless imparts limitations on the "code segment for sending an order to execute a trade…." In *In re Venezia* (189 USPQ 149 (CCPA 1976)), claims were drawn to "A splice connector kit having … a pair of sleeves of elastomeric material, each sleeve of said pair adapted to be fitted over the insulating jacket of a cable …." The court held that the language imparts a structural limitation "which structural limitations are defined by how the parts are to be interconnected in the final assembly, if assembled." *Id.* at 152. While the instant claims are drawn to code segments on computer readable medium for executing a trade, the *Venezia* holding would apply regarding the purported "intended use" limitation. Without the claim language "sending an order to execute a trade …", the code segment on the computer readable medium is rendered incomplete. Assuming, arguendo, that the Examiner cited phrase is an intended use, it nonetheless would provide a limitation to the "code segment", that is, one for sending an order.

Claim limitations employing phrases such as "adapted to", "capable of", or "sufficient to" are the typical indicators of potential "intended use" limitations. These phrases are not *per se* indications of intended use, but can suggest intended use in

certain applications and not result in a limitation in the subject matter. In such a case, the mere intended use will not distinguish over the prior art having identical limitations but used in another manner. The claims rejected by the Examiner, however, do not even employ such suspect language. By the Examiner inappropriately dissecting the claim limitation to create the appearance of an "intended use", without an issue of prior art, without typical "intended use" phraseology, and with the phrase providing definition to the claimed invention even if viewed as an "intended use" limitation, the Examiner's rationale regarding the purported "intended use" limitation is erroneous.

A proper reading of the claim limitations, indicates the claim should be read as not being one with an improper "intended use" limitation. In the alternative, if the claim is read as having the purported "intended use" limitation, then the limitation clearly adds structure by indicating a particular type or form of the code segment that is part of the computer readable medium. Therefore, the Examiner's contention that the claims are drawn to non-statutory subject matter because of the "intended use" (Final Office Action at 3) should be reversed.

i. Claims 67-82 are not affected by the purported "intended use" limitation

Claims 67-82 are drawn to a manufacture or apparatus, *i.e.*, "a computer readable medium". These claims contain the purported "intended use" limitation discussed *supra*. The rejection (Final Office Action at 2-3) is based on the claims being removed from statutory subject matter due solely on the Examiner's assertion that the purported "intended use" limitation renders the claims non-statutory subject matter. The Patent Office has long recognized that a computer readable medium constitutes statutory subject matter. As Appellants' discussed *supra*, the claims are not negatively affected because the purported phrase is not an "intended use." Even assuming, arguendo, that any "intended use" limitation could be derived from the claims, such a limitation would lend structure and connectivity of the parts of a computer readable medium or system.

ii. Claims 83-98 are not affected by the purported "intended use" limitation

Claims 83-98 are drawn to an article of manufacture or apparatus, *i.e.*, "a system". When directed by the Examiner and not taken as whole, these claims contain the purported "intended use" limitation discussed *supra*. The rejection (Final Office Action at 2-3) is based on the claims being removed from

statutory subject matter due solely on the Examiner's belief that the purported "intended use" limitation transforms the system into non-statutory subject matter. This is simply incorrect as "systems" are well recognized in the patent law as statutorily protected subject matter. As Appellants' discussed *supra*, the claims are not negatively affected because the purported phrase is not an "intended use" as asserted by the Examiner. Moreover, even assuming for the purpose of argument that any "intended use" limitation could be derived from the claims, such a limitation imposes structure and connectivity of the parts of the means of performing the steps within the system.

iii. Claims 99-113 are not affected by the purported "intended use" limitation

Claims 99-113 are drawn to a method. These claims contain the asserted "intended use" limitation discussed *supra*. The Examiner's suggestion that method claims should not contain an intended use limitation is not based in any case law known by Applicants or suggested by the Examiner. The rejection (Final Office Action at 2-3) is based on the claims being removed from statutory subject matter due solely on the Examiner's assertion that the purported "intended use" limitation renders the claims non-statutory subject matter. As Appellants' discussed *supra*,

the claims are not negatively affected because the purported phrase is not an "intended use" as suggested; and assuming, arguendo, that any "intended use" limitation could be derived from the claims, such a limitation would lend structure and connectivity of the parts used in performing the method steps.

iv. Claim 114 is not affected by the purported "intended use" limitation

Specifically, claim 114 is drawn to a method. This claim contains the purported "intended use" limitation discussed *supra*. The rejection (Final Office Action at 2-3) is based on the claim being removed from statutory subject matter due solely to the Examiner's unsupported assertion that the purported "intended use" limitation renders the claim non-statutory subject matter. As explained above, the Examiner's assertion that method claims are precluded from containing an intended use limitation is not grounded in the case law or any analysis supplied by the Examiner. As Appellants' discussed *supra*, the claim is not negatively affected because the purported phrase is not an "intended use" as suggested; and assuming, arguendo, that any "intended use" limitation could be derived from the claim, such a limitation would lend structure and connectivity of the parts of used in performing the method steps.

b. Rejections based in part on Judicial Exception to 35 U.S.C. 101

The Examiner has asserted that the claims include an improper "intended use" limitation (see *supra*). Because of this improper analysis, the Examiner removed the claims from the statutory subject matter under 35 U.S.C. 101. The Examiner further stated that the claims were drawn to a judicial exception to the statute, and that the claims were not directed to a practical application because the claims do not required any physical transformation and the claimed invention did not produce a useful, concrete and tangible result.

The Examiner has improperly applied the standards for statutory subject matter. The instant claims are not drawn to a judicial exception to statutory subject matter under 35 U.S.C. 101. Instead the claimed invention is directed to a practical application that produces a useful, concrete and tangible result: an indication to make a transaction. Appellants' will focus on the claims drawn to a manufacture, and then on machine-implemented process claims under the tests the Examiner improperly applied.

i. Claims 67-82 are not judicial exceptions to 35 U.S.C. 101

Claims 67-82 are drawn to a computer readable medium having a sequence of instructions (code segments) that effectuate a trade when executed. Computer programs, *i.e.*, code segments, are a type of "functional descriptive material". When stored on a medium such as "a computer readable medium", the combination qualifies as statutory subject matter. *Examination Guidelines for Computer-Related Inventions*, 61 Fed. Reg. 7478, 7481-82 (February 28, 1996).

The case law relied upon by the Examiner is drawn ultimately to process-type claims, which do not effectively apply to the claims at issue. In *Ex parte Lundgren*, 76 USPQ2d 1385, 1407-08 (Bd. Pat. App. & Int. 2005), the Board addressed such issues where simply storing information to be read by a machine does not mean the claim is patentable. It is understood that storing data such as music on a computer readable medium does not serve as "functional descriptive material"; however, the instant claims are drawn to "functional descriptive material" stored on a computer readable medium. The computer program product claims, as instantly claimed, are directed to an article of manufacture, specifically, software stored on a computer-readable medium. The software is functional software, as instantly claimed, in the sense that it reconfigures a general purpose computer to perform a specific task. While

Appellants' argument does not require that all useful and functional software is patentable in this new format, the instant claims recite a functional software (*i.e.*, code segments) used to effectuate trades, wherein the sequence of instructions lead to an order to execute a trade based on the preceding sequence of instructions. This is useful in the field of trading within the markets, wherein the user effectively and efficiently gets the results they desire based on their own preferences.

In the Federal Circuit's *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) decision, the court held that a particular data structure, as it exists in a computer memory, is entitled to patentable weight since storage of the data imparts physical change to the memory. In *Lowry*, the data structure permitted improved loading and manipulation of information. In the instant case the software permits improved trading within the market. The *Lowry* holding supports the understanding that software recorded on a computer readable medium is statutory subject matter that is patentable.

Contrary to the Examiner's assertion, claim 67 and 82 do produce a useful, concrete and tangible result in that an order is sent. The Examiner incorrectly contends that because there are no guarantees that a trade will occur, the claims do not produce a useful, concrete and tangible result. The sending of

an order, is itself a useful, concrete and tangible result. In addition, claims 67 and 82, at the very least will prompt an attempt to trade the security according to the order. Such an attempt in and of itself is also a useful, concrete and tangible result. Therefore, whether a trade actually occurs is moot for the purposes of a useful, concrete and tangible result.

In support of the concreteness-of-result requirement, the Examiner cites, but mischaracterizes, the holding in *In re Swartz*, 232 F.3d 862, 864 (Fed. Cir. 2000). The Swartz Court held that where asserted results produced by the claimed invention are "irreproducible," the claim should be rejected under §101. The Examiner stretches the meaning of the word "irreproducible" used by the Swartz Court to mean that the invention has to produce the same result at all times. The Examiner declares that the opposite of concrete is "unrepeatable or unpredictable," and then seeks to prove, incorrectly, that the claims produce "unrepeatable or unpredictable" results because the user can select different securities causing the trade of a different security, thereby changing the result. In other words, the Examiner takes the position that if a result is unrepeatable, it is unpatentable: this is not the law.

The *Swartz* court did not state or intend that meaning. For an invention to be statutory under the Examiner's interpretation of the *Swartz* case, the claims would have to specifically name a

security and the invention would have to execute a trade of that security and no other. Such an invention would not be useful for anything other than that particular security. *In re Swartz* did not read into the patent statute such a severely restrictive requirement on the scientific creativity in patentable inventions. *In re Swartz* does not require uniformity of the results beyond uniformity of inputs. *In re Swartz* provides that the invention should be able to reproduce the same result given the same set of inputs, not regardless of inputs.

In accordance with *In re Swartz*, claims 67 and 82 do produce the same order for the same trade with the same inputs. Therefore, the claimed invention produces a concrete result – the sending of an order for a trade execution based upon the inputs. The result is reproducible if the process of the claim is followed again with the same security in the manner claimed. The process embodied in claims 67 and 82 further produce reproducible results in that an order to execute a trade in the user selected security is reproducibly sent for any security the user may select. Therefore, claims 67 and 82 contain subject matter patentable under 35 U.S.C. 101, and implementing the steps of claims 67 and 82 does produce useful, concrete and tangible results that are reproducible under *In re Swartz* holding.

The Examiner asserts that the underlying process of the computer readable medium claims 67-82 is not statutory, stating "a computer readable storage medium that stores instructions for performing the underlying process does (sic) become statutory." See page 7 of the Final Office Action. The Appellants argue that the "underlying process" of claims 67-82 is statutory and that when the sequence of instructions (code segments) is executed the "underlying process" performs a useful, concrete and tangible result. Furthermore, once the sequence of instructions is executed, resulting in an order to execute a trade being sent, then transformation occurs. As argued above, functional descriptive material (*i.e.*, computer code) stored on a computer readable medium is within the statutory subject matter of 35 U.S.C. 101. With claims 67-82 properly read, the claimed computer readable medium is statutory subject matter. Therefore, when the "underlying process" is performed with a useful, concrete and tangible result, as is the case in claims 67-82, then the "underlying process" is statutory subject matter.

The Examiner cites *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978), for the purpose of saying that claim form is often an exercise in drafting. Appellants argue that this point is moot in this situation since the "underlying process" within claims 67-82 is statutory subject matter and

patentable. Furthermore, the Examiner's statement that the *Benson* case "forecloses a purely literal reading of §101" is also moot. Accordingly, the Examiner has failed to demonstrate that the invention of claims 67-82 is non-statutory subject matter.

ii. Claims 83-98 are not judicial exceptions to 35 U.S.C. 101

Claims 83-98 are drawn to a system for enabling a trade based on a computer readable medium having a sequence of instructions (code segments) that effectuate a trade when executed. The rationale of why these claims are not judicial exceptions to 35 U.S.C. 101 is similar to that for claims 67-82. The "means for" language in claims does not detract from the fact that the claimed system enables trades based on a computer readable medium having a sequence of instructions (code segments) that effectuate a trade when executed.

The system as defined in the disclosure functions through the computer readable medium claimed in claims 67-82. The result produced by the system is the same useful result as that produced when the code segments described *supra* are executed. Furthermore, *In re Alappat*, 33 F.3d 1526, 31 USPQ2d 1545 (Fed. Cir. 1994), announced that where claims recite a machine and means clauses, the claim is to be reviewed as a machine

(apparatus) claim and not a process claim. This is true where the specification supports such a machine/apparatus claim. The specification discloses in great detail the components that form "a system" and thereby what "means" are necessary to form "a system" within the claimed invention. Therefore, the Examiner's arguments at pages 7-8 regarding these claims are without merit. The system as claimed is supported to have functionality for the claimed purpose. A careful review of the specification demonstrates and defines the means by which the system enables a trade. Therefore, the claims are not rendered inoperative lacking utility.

The Examiner, at page 8 of the Final Office Action, appears to imply that the system of claims 83-98 comprises a disembodied software program, by stating that "computer…code cannot by itself perform the underlying function until it is loaded on some computer readable memory and accessed by the computer (or processor)." The system of claims 83-98 is disclosed as utilizing computer program embodied on a computer readable medium. Therefore, the system of claims 83-98 do not comprise any disembodied data structure or disembodied functional descriptive material. Therefore, the Examiner's conclusion that these claims are inoperative is improper.

Contrary to the Examiner's assertion under and mischaracterization of the *In re Swartz* holding discussed *supra*,

the system of claims 83-98 would produce the same order for the same trade with the same inputs. Appellants argue here as before, the system is designed to receive the same or different inputs depending on the user's preferences; therefore, the security for which an order to trade is executed may and can change depending on the inputs from the user. Ultimately, the reproducible result is an order to execute the trade. Therefore, the system of claims 83-98 produces a useful, concrete and tangible result.

The Examiner asserts that the "underlying process" of the apparatus claims 83-98 is not statutory, stating that "a computer readable storage medium that stores instructions for performing the underlying process does (sic) become statutory." See page 7 of the Final Office Action. The system as claimed and disclosed utilizes "means" for enabling a trade. The "means" are part of the statutory subject matter. The Appellants argue that the "underlying process" and the system of claims 83-98 is statutory and that when the sequence of means is executed the "underlying process" performs a useful, concrete and tangible result. Furthermore, once the sequence of means is executed, resulting in an order to execute a trade being sent, then transformation occurs. As argued above, functional descriptive material (i.e., computer code) stored on a computer readable medium is within the statutory subject matter of 35 U.S.C. 101.

This reasoning applies to the system of claims 82-98. With claims 83-98 properly read, the claimed system is statutory subject matter. Therefore, when the "underlying process" is performed with a useful, concrete and tangible result, as is the case in claims 83-98, then the "underlying process" is statutory subject matter.

The Examiner cites to *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978), for the purpose of saying that claim form is often an exercise in drafting. Appellants argue that this point is moot in this situation since the "underlying process" within claims 83-98 is statutory subject matter and patentable. Furthermore, the Examiner's statement that the *Benson* case "forecloses a purely literal reading of §101" is also moot. The Examiner cites to *In re Freeman*, 573 F.2d 1237, 1247, 197 USPQ 464, 472 (C.C.P.A. 1978); to illustrate the point that machine claims comprising "means for" terms may be considered apparatus claims, but may be indistinguishable from the "underlying method" performed by the "means". Appellants argue that the point is moot, but nonetheless stress the point that the "underlying method" of system claims 83-98 is statutory at least because the system claims are statutory subject matter. Once the means are executed in the system claims, the system for enabling a trade performs the means with a result that is useful, concrete and tangible. The Examiner has failed to

demonstrate that the invention of claims 83-98 is non-statutory subject matter.

iii. Claims 99-113 recite a statutory process

The Examiner improperly rejects claims 99-113 by removing the "to execute a trade" limitation as an intended use and rejecting the remaining limitations in these claims as merely data gathering steps, which claim a mathematical algorithm. See Final Office Action at pages 4-7. The Examiner cites many cases in support of variations of the above rejection, all variations being based on the flawed disposition of the limitation "to execute a trade" as described above. The Examiner is incorrect in applying these cases to claims 99-113 in at least two ways. First, whether each of the cited case-law in fact stands for what the Examiner cites it for is moot because the Examiner's underlying premise for applying these or other case-law to claims 99-113 is incorrect. Second, even if the cases do hold what the Examiner says they hold, they do not apply to these claims.

For example, the Examiner cites *In re Richman*, 563 F.2d at 1030 for asserting that data gathering steps as antecedent steps do not make the claims statutory. Claims 99-113 include the "sending an order to execute a trade" limitation, which is not a data gathering step. Therefore, these claims include more than

just the data gathering steps and this case is inapplicable to these claims. The Examiner also cites *In re Walter*, 618 F.2d 758 (CCPA 1980), in support of the assertion that the preamble, while including a "field of use" or "end use" is insufficient to make the claim statutory. Again, the non-data gather step of "sending an order to execute a trade" is not dependent on the preamble in the way *Walter* rejects. The Examiner further cites *In re Johnson*, 589 f.2d 1070 (CCPA 1978), to allege that merely claiming an invention in the form of an apparatus or computer readable storage medium does not make the claim statutory. Because the process embodied in claims 99-113 is sufficient to make the claims statutory, this case is also inapplicable to these claims. Specifically, as the "to execute a trade" limitation is not an intended use of "sending an order," the limitation "sending an order to execute a trade" is a step in a process that produces useful results. Therefore, claims 99-113 are directed to a process to produce a useful result, which is a statutory subject matter patentable under 35 U.S.C. §101.

iv. Claim 114 recites a statutory process

The Examiner improperly rejects claim 114 by removing the "to execute a trade" limitation as an intended use, again, and rejecting the remaining limitations in these claim as merely data gathering steps and therefore claiming a mathematical

algorithm. See Final Office Action at pages 4-7. The Examiner cites many cases in support of variations of the above rejection, all variations being based on the flawed disposition of the limitation "to execute a trade" as described above. The Examiner is incorrect in applying these cases to claim 114 in at least two ways. First, whether each of the cited case-law in fact stands for what the Examiner cites it for is moot because the Examiner's underlying premise for applying these or other case-law to claim 114 is incorrect. Second, even if the cases do hold what the Examiner says they hold, they do not apply to these claims.

For example, the Examiner cites *In re Richman*, 563 F.2d 1026, 1030, 195 USPQ 340 (CCPA 1977) for asserting that data gathering steps as antecedent steps do not make the claim statutory. Claim 114 includes "sending an order to execute a trade" limitation, which is not a data gathering step. Therefore, this claim includes more than just the data gathering steps and this case is inapplicable to this claim. The Examiner also cites *In re Walter*, 618 F.2d 758 (CCPA 1980), in support of the assertion that the preamble, while including a "field of use" or "end use" is insufficient to make the claim statutory. Again, the non-data gathering step of "sending an order to execute a trade" is not dependent on the preamble in the way *Walter* rejects. The Examiner further cites *In re Johnson*, 589

F.2d 1070 (CCPA 1978), to allege that merely claiming an invention in the form of an apparatus or computer readable storage medium does not make the claim statutory. The statutory process embodied in claim 114 is sufficient to make the claim statutory, therefore this case is inapplicable to the claim. Because the "to execute a trade" limitation is not an intended use of "sending an order," the limitation "sending an order to execute a trade" is a step in a process that produces useful results. Therefore, claim 114 is directed to a process that produces a useful result, which is a statutory subject matter patentable under 35 U.S.C. §101.
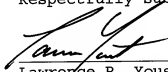
8. Conclusion

This case has been under examination since 2000. After overcoming all prior art and formal matters, the Examiner has raised yet another ground of rejection to slow down the progress of the application. This ground of rejection has no basis in law or fact, and it is unclear why it was instituted. Applicants respectfully ask that the Board and reverse the Examiner and allow the claims directed to this novel, nonobvious, and useful invention to issue.

This Brief on Appeal is being filed in conjunction with a Petition for a Two-Month Extension of Time. The Extension Fee of $460.00 and the Brief fee of $510.00 also accompany this

filing. Appellant believes no additional fees are due for this

filing. If any additional fees are due or any overpayments have

been made, however, please charge or credit Deposit Account No.

50-2816 of Patton Boggs, L.L.P.

Dated this 28th day of February, 2008

Respectfully submitted:

Lawrence R. Youst
Reg. No. 38,795
Patton Boggs, LLP
2001 Ross Avenue, Suite 3000
Dallas, Texas 75201
Tel 214.758.3414
Fax 214.758.1550

Appendix A - The Claims on Appeal

1-66. (Cancelled)

67. (Previously Presented) A computer readable medium having a sequence of instructions which, when executed by a processing entity, effectuates a trade in a user selected user preferred security, the computer readable medium comprising:

a code segment for identifying user preferred securities from a plurality of securities based upon at least two user specific criteria including at least one criterion related to pricing;

a code segment for generating a graph in which each of the user preferred securities is represented and graphically differentiated from each of the other user preferred securities based upon the values of at least three user specific parameters associated with each of the user preferred securities;

a code segment for receiving a user selection of one of the user preferred securities represented on the graph;

a code segment for associating order parameters with the user selected user preferred security; and

a code segment for sending an order to execute a trade in the user selected user preferred security according to the order parameters.

68. (Previously Presented) The computer readable medium as recited in claim 67 wherein the at least one criterion related to pricing is one of: Current Price, High/Low, Open/Close, Daily High/Low Count, 52 Week High/Low, Gap, Change from Close/Open, Change from X Day/Month/YTD Avg Close, X Day/Month/YTD High/Low, 15/60/120 Day SMA, 15/60/120 Day EMA, Rate of Change, 10/30/50 Day RSI, 10/30/50 Day RSI from Close, Bollinger Bands, MACD, 20/40/60 Day Momentum, 20/40/60 Day Momentum from Close, Money Flow, Money Flow (%), Williams %R, PE Ratio, and Market Cap.

69. (Previously Presented) The computer readable medium as recited in claim 67 wherein the code segment for associating order parameters with the selected user preferred security further comprises a code segment for associating a number of shares, a price and an execution location with the user selected user preferred security.

70. (Previously Presented) The computer readable medium as recited in claim 67 further comprising a code segment for preloading the order parameters prior to receiving the user selection of one of the user preferred securities represented on the graph.

71. (Previously Presented) The computer readable medium as recited in claim 67 wherein the code segment for sending an order to execute a trade in the user selected user preferred security further comprises a code segment for sending an order selected from the group comprising a buy order, a sell order, a short order and a cancel order.

72. (Previously Presented) The computer readable medium as recited in claim 67 further comprising a code segment for performing compliance analysis on the order.

73. (Previously Presented) The computer readable medium as recited in claim 67 further comprising a code segment for storing information relating to the order in a database.

74. (Previously Presented) The computer readable medium as recited in claim 67 further comprising a code segment for receiving a continuously updated stream of security data, including level one, level two and time and sales data, relating to the plurality of securities.

75.   (Previously Presented) The computer readable medium as recited in claim 67 further comprising a code segment for receiving a continuously updated stream of security data, including at least one of fundamental data and analytical data, relating to the plurality of securities.

76.   (Previously Presented) The computer readable medium as recited in claim 67 wherein code segment for generating a graph comprises a code segment for displaying a three dimensional coordinate system having mutually perpendicular axes intersecting at a common origin and representing the user preferred securities as visually distinct graphical icons located within the coordinate system at positions representative of the values of each of the user preferred securities.

77.   (Previously Presented) The computer readable medium as recited in claim 76 wherein the code segment for generating a graph further comprises a code segment for altering characteristics of the visually distinct graphical icons to represent dimensions greater than 3.

78.   (Previously Presented) The computer readable medium as recited in claim 67 wherein each of the user specific criteria is different from each of the user specific parameters.

79. (Previously Presented) The computer readable medium as recited in claim 67 wherein the user specific criteria and the user specific parameters are the same.

80. (Previously Presented) The computer readable medium as recited in claim 67 wherein at least one of the user specific criteria is different from any of the user specific parameters.

81. (Previously Presented) The computer readable medium as recited in claim 67 wherein at least one of the user specific criteria is the same as one of the user specific parameters.

82. (Previously Presented) A computer readable medium having a sequence of instructions which, when executed by a processing entity, effectuates a trade in a user selected user preferred security, the computer readable medium comprising:

a code segment for receiving security data for a plurality of securities from a security data source;

a code segment for receiving from a user at least two user specific criteria including at least one criterion related to pricing;

a code segment for automatically identifying within the plurality of securities at least two user preferred securities conforming to the user specific criteria received from the user;

a code segment for receiving at least first, second and third user specific parameters from the user;

a code segment for generating a graph having first, second and third mutually-orthogonal axes intersecting at a common origin;

a code segment for plotting each of the user preferred securities as an icon on the graph at a coordinate corresponding to the value of the first parameter of that user preferred security along the first axis, corresponding to the value of the second parameter of that user preferred security along the second axis and corresponding to the value of the third parameter of that user preferred security along the third axis,

thereby representing and graphically differentiating the user preferred securities from one another;

a code segment for receiving a user selection of one of the user preferred securities represented on the graph;

a code segment for associating order parameters with the user selected user preferred security; and

a code segment for sending an order to execute a trade in the user selected user preferred security according to the order parameters.

83. (Previously Presented) A system for enabling a trade in a user selected user preferred security, the system comprising:

means for identifying user preferred securities from a plurality of securities based upon at least two user specific criteria including at least one criterion related to pricing;

means for generating a graph in which each of the user preferred securities is represented and graphically differentiated from each of the other user preferred securities based upon the values of at least three user specific parameters associated with each of the user preferred securities;

means for receiving a user selection of one of the user preferred securities represented on the graph;

means for associating order parameters with the user selected user preferred security; and

means for sending an order to execute a trade in the user selected user preferred security according to the order parameters.

84. (Previously Presented) The system as recited in claim 83 wherein the at least one criterion related to pricing is one of: Current Price, High/Low, Open/Close, Daily High/Low Count, 52 Week High/Low, Gap, Change from Close/Open, Change from X Day/Month/YTD Avg Close, X Day/Month/YTD High/Low, 15/60/120 Day SMA, 15/60/120 Day EMA, Rate of Change, 10/30/50 Day RSI,

10/30/50 Day RSI from Close, Bollinger Bands, MACD, 20/40/60 Day Momentum, 20/40/60 Day Momentum from Close, Money Flow, Money Flow (%), Williams %R, PE Ratio, and Market Cap.

85. (Previously Presented) The system as recited in claim 83 wherein the means for associating order parameters with the selected user preferred security further comprises means for associating a number of shares, a price and an execution location with the user selected user preferred security.

86. (Previously Presented) The system as recited in claim 83 further comprising means for preloading the order parameters prior to the selection of one of the user preferred securities represented on the graph.

87. (Previously Presented) The system as recited in claim 83 wherein the means for sending an order to execute a trade in the user selected user preferred security further comprises means for sending an order selected from the group comprising a buy order, a sell order, a short order and a cancel order.

88. (Previously Presented) The system as recited in claim 83 further comprising means for performing compliance analysis on the order.

89. (Previously Presented) The system as recited in claim 83 further comprising means for storing information relating to the order in a database.

90. (Previously Presented) The system as recited in claim 83 further comprising means for receiving a continuously updated stream of security data, including level one, level two and time and sales data, relating to the plurality of securities.

91. (Previously Presented) The system as recited in claim 83 further comprising means for receiving a continuously updated stream of security data, including at least one of fundamental data and analytical data, relating to the plurality of securities.

92. (Previously Presented) The system as recited in claim 83 wherein means for generating a graph comprises means for displaying a three dimensional coordinate system having mutually perpendicular axes intersecting at a common origin and representing the user preferred securities as visually distinct graphical icons located within the coordinate system at positions representative of the values of each of the user preferred securities.

93. (Previously Presented) The system as recited in claim 92 wherein the means for generating a graph further comprises means for altering characteristics of the visually distinct graphical icons to represent dimensions greater than 3.

94. (Previously Presented) The system as recited in claim 83 wherein each of the user specific criteria is different from each of the user specific parameters.

95. (Previously Presented) The system as recited in claim 83 wherein the user specific criteria and the user specific parameters are the same.

96. (Previously Presented) The system as recited in claim 83 wherein at least one of the user specific criteria is different from any of the user specific parameters.

97. (Previously Presented) The system as recited in claim 83 wherein at least one of the user specific criteria is the same as one of the user specific parameters.

98. (Previously Presented) A system for enabling a trade in a user selected user preferred security, the system comprising:

means for receiving security data for a plurality of securities from a security data source;

means for receiving from a user at least two user specific criteria including at least one criterion related to pricing;

means for automatically identifying within the plurality of securities at least two user preferred securities conforming to the user specific criteria received from the user;

means for receiving at least first, second and third user specific parameters from the user;

means for generating a graph having first, second and third mutually-orthogonal axes intersecting at a common origin;

means for plotting each of the user preferred securities as an icon on the graph at a coordinate corresponding to the value of the first parameter of that user preferred security along the first axis, corresponding to the value of the second parameter of that user preferred security along the second axis and corresponding to the value of the third parameter of that user preferred security along the third axis, thereby representing and graphically differentiating the user preferred securities from one another;

means for receiving a user selection of one of the user preferred securities represented on the graph;

means for associating order parameters with the user selected user preferred security; and

means for sending an order to execute a trade in the user selected user preferred security according to the order parameters.

99. (Previously Presented) A method for enabling a trade in a user selected user preferred security, the method comprising:

identifying user preferred securities from a plurality of securities based upon at least two user specific criteria including at least one criterion related to pricing;

generating a graph in which each of the user preferred securities is represented and graphically differentiated from each of the other user preferred securities based upon the values of at least three user specific parameters associated with each of the user preferred securities;

receiving a user selection of one of the user preferred securities represented on the graph;

associating order parameters with the user selected user preferred security; and

sending an order to execute a trade in the user selected user preferred security according to the order parameters.

100. (Previously Presented) The method as recited in claim 99 wherein the at least one criterion related to pricing is one of: Current Price, High/Low, Open/Close, Daily High/Low Count, 52 Week High/Low, Gap, Change from Close/Open, Change from X Day/Month/YTD Avg Close, X Day/Month/YTD High/Low, 15/60/120 Day SMA, 15/60/120 Day EMA, Rate of Change, 10/30/50 Day RSI, 10/30/50 Day RSI from Close, Bollinger Bands, MACD, 20/40/60 Day

Momentum, 20/40/60 Day Momentum from Close, Money Flow, Money Flow (%), Williams %R, PE Ratio, and Market Cap.

101. (Previously Presented) The method as recited in claim 99 wherein the step of associating order parameters with the selected user preferred security further comprises associating a number of shares, a price and an execution location with the user selected user preferred security.

102. (Previously Presented) The method as recited in claim 99 further comprising preloading the order parameters prior to the step of receiving the user selection of one of the user preferred securities represented on the graph.

103. (Previously Presented) The method as recited in claim 99 wherein the step of sending an order to execute a trade in the user selected user preferred security further comprises sending an order selected from the group comprising a buy order, a sell order, a short order and a cancel order.

104. (Previously Presented) The method as recited in claim 99 further comprising performing compliance analysis on the order.

105. (Previously Presented) The method as recited in claim 99 further comprising storing information relating to the order in a database.

106. (Previously Presented) The method as recited in claim 99 further comprising receiving a continuously updated stream of security data, including level one, level two and time and sales data, relating to the plurality of securities.

107. (Previously Presented) The method as recited in claim 99 further comprising providing a continuously updated stream of security data, including at least one of fundamental data and analytical data, relating to the plurality of securities.

108. (Previously Presented) The method as recited in claim 99 wherein the step of generating a graph comprises displaying a three dimensional coordinate system having mutually perpendicular axes intersecting at a common origin and representing the user preferred securities as visually distinct graphical icons located within the coordinate system at positions representative of the values of each of the user preferred securities.

109. (Previously Presented) The method as recited in claim 99 wherein the step of generating a graph further comprises altering characteristics of the visually distinct graphical icons to represent dimensions greater than 3.

110. (Previously Presented) The method as recited in claim 99 wherein each of the user specific criteria is different from each of the user specific parameters.

111. (Previously Presented) The method as recited in claim 99 wherein the user specific criteria and the user specific parameters are the same.

112. (Previously Presented) The method as recited in claim 99 wherein at least one of the user specific criteria is different from each of the user specific parameters.

113. (Previously Presented) The method as recited in claim 99 wherein at least one of the user specific criteria is the same as one of the user specific parameters.

114. (Previously Presented) A method for enabling a trade in a user selected user preferred security, the method comprising:

receiving security data for a plurality of securities from a security data source;

receiving from a user at least two user specific criteria including at least one criterion related to pricing;

automatically identifying within the plurality of securities at least two user preferred securities conforming to the user specific criteria received from the user;

receiving at least first, second and third user specific parameters from the user;

generating a graph having first, second and third mutually-orthogonal axes intersecting at a common origin;

plotting each of the user preferred securities as an icon on the graph at a coordinate corresponding to the value of the first parameter of that user preferred security along the first axis, corresponding to the value of the second parameter of that user preferred security along the second axis and corresponding to the value of the third parameter of that user preferred security along the third axis, thereby representing and graphically differentiating the user preferred securities from one another;

receiving a user selection of one of the user preferred securities represented on the graph;

associating order parameters with the user selected user preferred security; and

sending an order to execute a trade in the user selected user preferred security according to the order parameters.

Appendix B - Evidence

None.

Appendix C - Related Proceedings

None.